

**THOMAS M. HOLSEN**

Professor  
 Department of Civil and Environmental Engineering  
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**Education**

University of California at Berkeley	B.S.	1983	Environmental Sciences
University of California at Berkeley	M.S.	1985	Civil Engineering
University of California at Berkeley	Ph.D.	1988	Civil Engineering

**Appointments**

Professor: Department of Civil and Environmental Engineering, Clarkson University, Potsdam, NY. Actively involved in teaching and research (Starting 8/98).

Associate Chairman Environmental Engineering Division: Department of Chemical and Environmental Engineering. Responsible for administration of the environmental engineering division (5/95 to 8/98).

Associate Professor of Environmental Engineering: Department of Chemical and Environmental Engineering (until 7/95 Pritzker Department of Environmental Engineering), Illinois Institute of Technology, Chicago, IL.. (3/88-5/93 Assistant Professor).

Staff Engineer: East Bay Municipal Utility District (EBMUD). Research on THM control. (part-time 10/87 - 3/88).

Environmental Scientist: Kennedy/Jenks Engineers, San Francisco, CA (5/83-8/84).

**Representative Publications (> 100 total)**

Selvendiran, P., Driscoll, C.T., Montesdeoca, M.R., Choi, H.D., Holsen, T.M. Mercury dynamics and transport in two Adirondack lakes *Limnol. Oceanogr.*, 54(2), 2009, 413–427

Choi H.-D. and Holsen.T.M., Gaseous Mercury Emissions from the Forest Floor of the Adirondacks. (Accepted for publication in *Environmental Pollution*, August 2008)

Choi H.-D., Holsen.T.M., and Sharac T.J., Mercury Deposition in the Adirondacks: A Comparison between Precipitation and Throughfall. (2008) *Atmos Environ* 42 1818–1827

Choi H.-D., Holsen.T.M., and Hopke, P.K., Atmospheric Mercury (Hg) in the Adirondacks: Concentrations and Sources. (2008) *Environ Sci Technol*, 42, 5644–5653

Lee, Sang-Rin, Holsen, T.M., Dhaniyala, S. *Design and Development of Novel Large Particle Inlet for PM larger than 10 $\mu$ m (PM>10)* (2008) *Aerosol Sci Tech* 42:2 140-151

Lai, S.O., Holsen, T.M., Hopke, P.K. *Wet Deposition of Mercury at a New York State Rural Site: Concentrations, Fluxes, and Possible Source Areas* (2007) *Atmos Env* 41:4227-4348

Han, Y-J, Holsen, T.M., Hopke, P.K. *Estimation of Source Locations of Total Gaseous Mercury Measured in New York State Using Trajectory Based Models* *Atmos Env* (2007) 41:6033-6047

Evers, D.C., Han, Y.J., Driscoll, C.T., Kamman, N.C., Goodale, M.W., Fallon Lambert, K., Holsen, T.M., Chen, C.Y., Clair, T.A., Butler, T. *Biological Mercury Hotspots in the Northeastern United States and Southeastern Canada*, (2007) *BioScience*, Vol. 57 No. 1

Lai, S.O., Holsen, T.M., Han, Y.J., Hopke, P.K., Yi, S.M., Blanchard, P., Pagano, J.J., Milligan, M.S. *Estimation of Mercury Loadings to Lake Ontario: Results from the Lake Ontario Atmospheric Deposition Study (LOADS)*, (2007) *Atmos Environ* 41, 8205-8218

Driscoll, C.T., Han, Y.J., Chen, C.Y., Evers, D.C., Fallon Lambert, K., Holsen, T.M., Kamman, N.C., Munson, R.K., *Mercury Contamination in Forest and Freshwater Ecosystems in the Northeastern United States: Sources, Transformations and Management Options* (2007) *BioScience*, Vol. 57 No. 1

Yi, S.M., Totten, L.A., Thota, S., Tan, S., Offenber, J.H., Eisenreich, S.J., Graney, J., Holsen, T.M. *Atmospheric dry deposition of trace elements measured around the urban and industrially impacted NY-NJ harbor* (2006) *Atmos. Environ.* 40, 6626–6637

Han, Y.J., Holsen, T.M., Hopke, P.K., Yi, S.M. *Comparison between Back-trajectory Based Modeling and Lagrangian Backward Dispersion Modeling For Locating Sources of Reactive Gaseous Mercury* (2005) *Environ. Sci. Tech.* 39, 1715-1723

Gao, N., Armatas, N.G., Shanley, J.B., Kamman, N.C., Miller, E.K., Keeler, G. J., Scherbatskoy, T., Holsen, T.M., Young, T., McIlroy, L., Drake, S., Olsen, B., Cady, C., *Mass Balance Assessment for Mercury in Lake Champlain*, *Environ. Sci. Technol.*; 2006; 40(1) 82-89.

Yi, S.M., Shahin, U., Sivadechathep, J., Sofuoglu, S.C., Holsen, T.M. *Overall Elemental Deposition Velocities Measured Around Lake Michigan* (2001) *Atmos. Environ.* 35,1133-1140.

Odabasi, M., Sofuoglu, A., Holsen, T.M. *Mass Transfer Coefficients for Polycyclic Aromatic Hydrocarbons (PAHs) to the Water Surface Sampler: Comparison to Modeled Results* (2001) *Atmos. Environ.* 35,9 1655-1662

Shahin, U, Yi, S.M., Paode, R.D., Holsen, T.M. *Long Term Elemental Dry Deposition Fluxes Measured Around Lake Michigan with an Automated Dry Deposition* (2000) *Environ. Sci. Technol.* 34,10,1887-1892

### Synergistic Activities

**Co-Director**, Dr. Holsen is past co-director of Clarkson's Center for the Environment. The mission of the Clarkson Center for the Environment is to facilitate the development, promotion and operation of environmental activities within the University and among its partners. The Center fosters links and collaboration among faculty, students and partners who will actively participate in the activities required to meet its vision of excellence.

**Advisor of WERC teams**: Dr. Holsen has taught an innovative senior capstone design course that has included student participation in the Waste-management Education and Research Consortium Environmental Design Competition (WERC) in New Mexico. This course incorporates real-world problem solving with a special emphasis on project-based learning. Student teams received awards for their design each year..

**Awards received**: Dr. Holsen was recipient of the BFGoodrich Collegiate Inventors Award with J. R. Selman and S. L. Guddati for *The Chromyl Chloride Process -- A Novel Technique for Chromium Recovery from Aqueous Solutions* (1995). He has also received the AEESP Distinguished Service Award; and the Albert D. Merrill Award, from the Dept. Civil & Environ. Engineering, Clarkson University.

**Professional activities**: Critical reviewer of a U.S. EPA technical document on sources of pollutants in the Great Lakes region prepared for Congress. Data reviewer for the Integrated Atmospheric Deposition Network. Steering Committee for the Lake Michigan Mass Balance Study. Technical Advisory Committee for the International Association of Great Lakes Research (95-96). Best PhD Thesis Review Committee AEEP (98,99,00).

**Courses Taught** (2000-2009): Chemodynamics, Earth Systems Science; Chemical Fate and Transport in the Environment, Senior Design, Environmental Physico-Chemical Processes, Engineering for Non-Engineers

**Associate Editor** (2005-) Water Environment Research